DOCUMENT RESUME

ED 456 507 EA 031 168

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TITLE Bending Knee Elementary: A Case Study of the Quest Network.
INSTITUTION AEL, Inc., Charleston, WV.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE 2000-07-00
NOTE 76p.
CONTRACT RJ96006001
AVAILABLE FROM AEL, Inc., P.O. Box 1348, Charleston, WV 25325-1348. Tel: 304-347-0400; Tel: 800-624-9120 (Toll Free); Fax: 304-347-0487; e-mail: aelinfo@ael.org; Web site: http://www.ael.org.
PUB TYPE Reports - Research (143) -- Tests/Questionnaires (160)
EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Academic Achievement; Educational Change; *Educational Improvement; Elementary Education; *Public Schools; *Teacher Morale; Writing (Composition)

ABSTRACT

As part of its Regional Educational Laboratory contract to develop a framework for continuous school improvement in its four-state region, AEL, Inc., staff designed the Quest project. Formative evaluation had revealed the high level of satisfaction participants had with Quest and the great extent to which the project met its goals at each event. A case-study method was used for summative evaluation of the Quest project. This case study examines the impact Quest made at Bending Knee Elementary, a pre-K-6 public school located in a small, impoverished town in a rural coal-mining West Virginia county. The school has an enrollment of about 220 students, all of whom are white. Approximately 70 percent qualify for free or reduced-priced lunch. A variety of data-collection methods and instruments were used in this case study. Systematic participant observation was conducted at nearly every Quest event, as well as semistructured interviews and the solicitation of formative feedback from project participants. Among the conclusions drawn was the observation that Bending Knee Elementary appears to have a history of undertaking improvement efforts. These experiences, along with a respected school administrator and a tight-knit school community, may have contributed to the success of Quest at the school. Appendixes include the Quest brochure and framework of continuous improvement, protocols for Quest team member individual interview, and faculty focus-group interviews. (Contains 46 references and 10 tables.) (DFR)

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BENDING KNEE ELEMENTARY: A CASE STUDY OF THE QUEST NETWORK

Caitlin Howley-Rowe

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A CASE STUDY OF THE QUEST NETWORK

Caitlin Howley-Rowe
July 2000

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This publication is based on work sponsored wholly or in part by the Office of Educational Research and Improvement, U.S. Department of Education, under contract number RJ96006001. Its contents do not necessarily reflect the views of OERI, the Department, or any other agency of the U.S. government.

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EXECUTIVE SUMMARY

As part of its Regional Educational Laboratory (REL) contract to develop a framework for continuous school improvement in its four-state region, AEL, Inc. staff designed the Quest project (see Appendix A). Based upon principles of inquiry, collaboration, and action research, Quest proposes to support and investigate ongoing school improvement efforts through twice-yearly conferences (which staff renamed rallies), summer symposia, a Scholars program, visits to participating schools, communication via listserv and mailings, and the creation of a Quest network of schools. The project began with rallies for elementary and high schools in October and November 1997 and has continued until the time of this writing. Membership in the Quest network has ranged from 20 schools to the current 17.

Formative evaluation revealed the high level of satisfaction participants had with Quest and the great extent to which the project met its goals at each event (Howley-Rowe, 1999a-c, 1998a-f). Exploratory research also indicated various reasons some schools were more involved in the network than others (Howley-Rowe, 1999d). These sources of information convinced project staff that Quest had made some impact on those involved. Quest staff were therefore more interested in summative evaluation that elucidated *in what ways* Quest had been of value to schools and individuals in the project than in evaluation focusing solely on quantitative outcome measures.

A case study approach was taken for summative evaluation of the Quest project. Given that Quest staff were most interested in understanding the impact of the project on various levels, from the individual to the school to the network, the case study method seemed most appropriate. In addition, project staff were committed to understanding project impact from the perspectives of various participants in the network, including students, teachers, parents, and administrators.

This case study examines the impact Quest made at Bending Knee Elementary, a pre-K-6 public school located in a small, impoverished town in a rural coal-mining West Virginia county. The school has an enrollment of about 220 students, all of whom are White. Approximately 70% qualify for free or reduced-price lunch.

A variety of data collection methods and instruments were used in this case study. Systematic participant observation was conducted at nearly every Quest event, as well as semi-structured interviews and the solicitation of formative feedback from project participants. Pre- and post-test scores on the Professional Learning Community instrument (see Appendix E) were analyzed to discern if case study schools had become more like professional learning communities over the course of their participation in Quest. The evaluator and a trained Quest consultant conducted a site visit on May 8, 2000, to Bending Knee Elementary, during which semistructured individual interviews were conducted with seven Quest team members using a predesigned protocol (see Appendix B). In addition, two semistructured group interviews were conducted with a total of 10 members of the school faculty who had been minimally or not at all involved in Quest events (see Appendix C). Finally, seven Quest team members completed the Quest Reflective Assessment Questionnaire (see Appendix D).

Other data sources included summary achievement data from the state-mandated Stanford Achievement Test. Another instrument completed by Quest participants at the close of the project was an Innovation Configuration Checklist detailing the essential components of Quest as well as variations thereof (see Appendix F).

Interviews, the focus group, and means on the Quest Innovation Configuration Checklist revealed that Bending Knee Elementary had been highly involved in Quest, from attending network events regularly and implementing continuous improvement strategies learned during project gatherings to providing technical assistance to other network schools. Faculty reported that their use of the Protocol process, a technique for teachers to examine student work in a nonthreatening atmosphere, had enhanced teacher collaboration, enabled the exchange of ideas, and resulted in improved student performance according to informal assessments. School staff themselves felt they had become more of a professional learning community over the course of their involvement in Quest. Mean total scores on the Professional Learning Community instrument rose from 49.30 (SD 10.57) in 1998 to 73.69 (SD 4.64) in 1999 out of a possible 85 points. This increase was statistically significant at the .05 level, with a t score of 7.612; with $d = 1.10$, the effect size indicated that staff growth in terms of their sense of themselves as a professional learning community was substantial.

In terms of student achievement, improvement trends were apparent at Bending Knee between the years of 1997 and 2000. For instance, third grade total basic skills increased consistently between 1997 and 2000. Although some of the growth is statistically significant, only third grade math and total basic skills score increases seem to possess any practical significance as indicated by moderate effect sizes. Quest may have influenced the improvements in achievement at Bending Knee; however, such growth is relatively limited. Given that these findings are nonetheless promising, the school may see further growth as staff continue to implement Quest-related initiatives.

Among the conclusions drawn was the observation that Bending Knee Elementary appears to have a history of undertaking improvement efforts. These experiences, along with a respected school administrator and a tight-knit school community, may have contributed to the success of Quest at Bending Knee. Simultaneously, however, staff confront many challenges often associated with rural schools, such as remote location and an impoverished tax base.

Because of the schools' apparent commitment to continuous improvement, the Bending Knee Quest team has been highly involved in the project. On the individual level, participants reported that they engaged in more reflection about education, change, and their own contributions to the school than they had prior to involvement. Enhanced communication and collaboration were also reported. The school adopted three strategies or foci learned via Quest, which have had varied types and degrees of outcomes, ranging from the use of better classroom questioning techniques to the experience of sharing ideas regularly. Moreover, the school has developed dramatically as a professional learning community over the course of its involvement in the network. Overall, it appears that Quest has made an important impact at Bending Knee Elementary, supported by the school's own commitment to continuous learning.

INTRODUCTION

AEL's Quest Project

As part of its contract to develop a framework for continuous school improvement in its four-state region, AEL staff designed the Quest project (see Appendix A). Based upon principles of inquiry, collaboration, and action research, Quest proposed to support and investigate ongoing school improvement efforts through twice-yearly conferences (which staff renamed rallies), summer symposia, a Scholars program, visits to participating schools, communication via listserv and mailings, and the creation of a Quest network of schools.

The project drew from literature on school change suggesting that subjectivity and personal growth are essential to the change process (Fullan, 1991). Yet because individual development takes place within a variety of social contexts, including school communities, staff designed the Quest network with attention to the ways shared vision, goals, and sense of community support ongoing school improvement (Barth, 1990; Hord et al., 1987; Postman, 1995; Sergiovanni, 1994). Similarly, school culture may impede or enhance significantly the viability of school improvement work (Richardson, 1996; Ryan, 1995). If a school community shares certain norms, such as self-evaluation, curiosity, proactivity, and high performance expectations, reform efforts are hypothesized to fare better than those in school cultures that do not possess such norms. Other research suggests that school administrators must assume a collaborative role in decision making if reform efforts are to succeed (van der Bogert, 1998), and that instructional and curricular goals must be informed by a diverse contingent of school stakeholders, including parents, students, and community members (Barth, 1990; Sergiovanni, 1994).

Quest staff were also attuned to literature suggesting that honoring the purpose of education enhances school change. Assessment strategies, for instance, ought to serve multiple ends, not the least of which is to provide information for ongoing teaching and learning (Wiggins, 1993). And ultimately, education generally and reform endeavors specifically need to nurture a host of attributes enabling students to make use of their education to lead thoughtful lives (Perkins, 1995; Postman, 1995).

In sum, Quest staff sought to create a network of schools committed to continuous improvement, collaboration, and inquiry. Participants would engage in, reflect upon, and assess the reform endeavors their schools undertook with the support of Quest.

Quest Activities

In the summer of 1996, Quest staff at AEL began working with teams from school communities in three West Virginia county school districts to invigorate efforts for continuous school improvement, using a variety of techniques for gathering input from all those with a stake in their local schools (Howley-Rowe, 1998g). This first learning community, called Leadership to Unify School Improvement Efforts (LUSIE), consisted of school teams including students, teachers, administrators, parents, and community members. Ultimately, this group wrote individual school visions and improvement plans, and coauthored (with AEL) *Creating Energy for School*

Improvement (1997), a supplemental guide for those poised to write their own state-mandated school improvement plans.

Quest staff also were committed to creating learning communities devoted to exploring continuous school improvement across the AEL region of Kentucky, Tennessee, Virginia, and West Virginia. Hence, staff scheduled a pilot Inquiry Into Improvement conference in April 1997 for selected high schools in the region. Schools were selected in several ways. Some schools were recommended for the Quest experience by central office staff or school administrators. Other schools were asked to join Quest because they had participated in previous AEL programs. Still other schools were invited because Quest staff believed they were primed for the kind of collaborative inquiries into school improvement that Quest was designed to provide.

In October 1997, in Roanoke, Virginia, another conference was held for designated high schools in the AEL region, this time with an explicit emphasis on forming and nurturing a network of schools (Howley-Rowe, 1998c). A similar conference was held in Nashville, Tennessee, for designated region elementary schools in November 1997 (Howley-Rowe, 1998a). In order to facilitate the development of a Quest school network and to continue to help invigorate continuous school improvement efforts within network schools, staff planned a sequence of events in 1998 following these initial conferences. Dissatisfied with the conventional and prescriptive connotation of the word *conference*, Quest staff chose to call these network meetings *rallies*. Thus, all events previously called conferences were now termed rallies.

The high school network met a second time on February 8-10, 1998, at the Pipestem State Park Resort in West Virginia (Howley-Rowe, 1998d), following which the elementary school network participated in a rally on February 22-24, 1998, in Lexington, Kentucky (Howley-Rowe, 1998b). During the summer, 11 network members participated in the Quest Scholars Program, meeting at a colloquium in Charleston, West Virginia, on July 16-18, 1998, to collaborate with project staff in ongoing efforts to conceptualize, design, and research Quest (Howley-Rowe, 1998e). Finally, in August, network members and other educators in AEL's region participated in a symposium on assessment of student work (Howley-Rowe, 1998f).

From the high school network rally in October 1997 to the August 1998 summer symposium, Quest staff hosted six network events. The Quest network contained an essentially stable membership, although there were differences in the number of school teams that attended each event and in the frequency that school teams attended gatherings. Project staff recently investigated this phenomenon, finding that administrative support for participation in the network was the factor reported to be most important to schools' initial and sustained involvement in Quest (Howley-Rowe, 1999c).

Beginning their second year of network activity, Quest staff invited the elementary and high school networks to attend a rally together on November 2-3, 1998, at the Glade Springs Resort, near Daniels, West Virginia (Howley-Rowe, 1999a). Approximately half of the Quest Scholars met on November 1, 1998, to plan with project staff several rally activities. Scholars from the high school

network met for three hours on February 14, 1999, prior to a high school network rally held on February 15-16 in Roanoke, Virginia (Howley-Rowe, 1999c). A similar rally was held for elementary network members on February 22-23, 1999, in Lexington, Kentucky (Howley-Rowe, 1999b).

A second Scholars colloquium was convened on July 12-15, 1999, at Mountain Lake Resort, Virginia (Howley-Rowe, 1999c). The primary purpose of this colloquium was for Quest staff and Scholars to collaborate in evaluating and writing about the project, ultimately contributing written pieces to a book about the Quest network. In addition, a second summer symposium was convened in Gatlinburg, Tennessee, July 26-27, 1999 (Parrish & Howley-Rowe, 2000).

The third year of Quest events began with two rallies and a Scholars meeting in November 1999 in Bristol, Virginia. A rally for elementary schools was conducted on November 11-12, 1999. Scholars met to discuss writing and several Quest instruments on November 13-14. And a high school rally was held on November 15-16. Network high schools met again on February 14-15, 2000 in Roanoke, Virginia. Elementary schools participated in a rally on February 17-18, 2000 in Lexington, Kentucky. Evaluation of these events was not conducted, as staff turned their efforts to summative evaluation of the project; Quest and the 1996-2000 REL contract funding the project would come to an end in November 2000.

Summative Evaluation of Quest

Quest staff delineated several evaluation questions they hoped summative evaluation would address. These questions were categorized in terms of inputs and outputs, or independent and dependent variables. In other words, staff wanted to understand the relationship of such issues as the extent of involvement in Quest and school-specific improvement efforts inspired by Quest to issues such as the extent to which professional learning community was enhanced or to which participating schools approximated the Quest framework of continuous improvement. More succinctly, Quest staff hoped to learn from summative evaluation what impact participation in Quest had upon schools, individuals within them, and the network as a whole.

Summative evaluation questions and the instruments or methods used to answer them are listed in Table 1.

Thus, summative evaluation of Quest is intended to answer the questions formulated by Quest staff and the evaluator. Summative evaluation will describe the impact Quest had upon schools and their school communities, providing some evidence of the effectiveness of the project.

Table 1
Summative Evaluation Questions and Instruments/Methods

Independent variables/inputs	**Instrument/Method**
To what extent do Quest team members think their schools have enacted Quest components?	Innovation Configuration Checklist
What specific Quest related activities have schools participated in?	History of involvement
Dependent variables/outcomes	**Instrument/Method**
Has Quest enhanced professional learning community in network schools?	*School Staff as Professional Learning Community* instrument pre- and post-test
To what extent do members of the Quest team think their school approximates the Quest framework, and to what degree is this attributable to Quest?	Reflective Assessment Questionnaire
What have been the changes in student achievement during Quest participation?	Achievement data School report card
What has been the impact of Quest on individuals and schools, and of what value has the network been?	Quest team member interviews
What have schools undertaken as a result of Quest, and what have been the results?	Faculty focus group Quest team member interviews
What have been the results of school projects undertaken due to Quest?	School data about results of school projects
What do network participants report has happened at their schools due to Quest? In what other ways has Quest been effective?	School stories

The primary audience for summative evaluation of the project is Quest staff at AEL. It is intended to offer project staff a summative perspective on the impact of Quest in four disparate schools. Other audiences include representatives of AEL's funding source, the U.S. Department of Education's Office of Educational Research and Improvement (OERI), and policymakers, school administrators, teachers, education researchers, and others interested in strategies to support continuous school improvement.

METHODS

A case study approach was taken for summative evaluation of the Quest project. Given that Quest staff were most interested in understanding the impact of the project on various levels, from the individual to the school to the network, the case study method seemed appropriate. In addition, project staff were committed to understanding project impact from the perspectives of various participants in the network, including students, teachers, parents, and administrators. Case studies involve in-depth "multi-perspectival analyses" (Tellis, 1997) of single systems or phenomena; they rely on clearly delineated boundaries rather than on sampling (Stake, 1995). The focus, depth, and ability to account for multiple viewpoints associated with the case study approach led Quest staff to consider using such a method.

Moreover, formative evaluation had revealed the high level of satisfaction participants had with Quest and the great extent to which the project met its goals at each event (Howley-Rowe, 1999a-c, 1998a-f). Exploratory research also indicated various reasons some schools were more involved in the network than others (Howley-Rowe, 1999d). These sources of information convinced project staff that Quest had made some impact on those involved. Quest staff were therefore more interested in summative evaluation that elucidated *in what ways* Quest had been of value to schools and individuals in the project.

Hence, summative evaluation of the Quest project includes case studies of four network schools. The schools were selected for their high level of involvement in Quest, varied interpretations and uses of the project, and diverse locations and demographic constitutions.

For example, while one school used Quest to support parent involvement programs, another discovered a variety of inquiry techniques to improve student writing. One small elementary school is located in a rural, impoverished Appalachian area, while a very large high school is in a relatively wealthy suburb of the nation's capital. All four schools, nonetheless, found Quest flexible enough to accommodate their very different goals for improvement and structured enough to provide constructive strategies supporting change.

A strength of case studies is their reliance on triangulation of data to provide a more comprehensive description of the objects of study than might be rendered by use of a single research method. Using several data sources in order to corroborate theses is what Brewer and Hunter (1989) call "multimethod research." This approach posits that the strengths of each method will compensate for the weaknesses in others, ultimately providing a more complete account of that which is being studied.

On the other hand, the case study approach has been criticized for its "dependence on a single case [which] renders it incapable of providing a generalizing conclusion" (Tellis, 1997, p. 3). While generalization to populations is certainly compromised by the case study method, generalization to theory is not as problematic if case studies are conducted with sufficient rigor and transparency. Hence, conclusions generated by case studies can be used to generalize by synecdoche as "a claim

that the essential features of the larger social unit are reproduced in microcosm within the smaller social unit, and that by studying them in micro we might make inferences about the macrostructure of which they are a part" (Brewer & Hunter, 1989, p. 123).

Both qualitative and quantitative methods contributed to this evaluation component of the Quest project. During project events, the evaluator engaged in participant observation (Becker & Geer, 1957; Emerson, 1983; Glazer, 1972; Hammersley & Atkinson, 1983; Miles & Huberman, 1994), a method highly suited "for studying processes, relationships among people and events, the organization of people and events, continuities over time, and patterns" (Jorgensen, 1989, p. 12). Furthermore, consistent with the Quest paradigm, participant observation involves "a flexible, open-ended, opportunistic process and logic of inquiry through which what is studied constantly is subject to redefinition based on field experience and observation" (Jorgensen, p. 23). This method "is a commitment to adopt the perspective of those studied by sharing in their . . . experiences" (Denzin, 1989, p. 156), thereby enabling researchers to evaluate how an event or process appears and feels to participants. And, finally, participant observation places the evaluator squarely in the field, rather than in the office or on the phone, allowing for the collection of richer, more directly acquired data (Patton, 1980).

Denzin (1989, pp. 162-65) describes four variations in participant observation strategies: the complete participant, the participant as observer, the observer as participant, and the complete observer. The evaluator played a role more akin to the participant as observer, participating in ongoing project activities as appropriate but not concealing data collection.

In order to corroborate the theses generated by participant observation, the evaluator also conducted other data collection and analysis activities. The evaluator and a trained Quest consultant conducted a data collection site visit on May 8, 2000, during which semistructured individual interviews were conducted with seven Bending Knee Quest team members using a predesigned protocol (see Appendix B), although two interviews were not recorded due to equipment failure. In addition, two semistructured group interviews (see Appendix C) were conducted with a total of 10 members of the school faculty who had been minimally or not at all involved in Quest events. Finally, seven Quest team members completed the Reflective Assessment Questionnaire (see Appendix D).

Pre- and post-test scores on the Professional Learning Community instrument (see Appendix E) were analyzed to discern if case study schools had become more like professional learning communities over the course of their participation in Quest. This instrument was first administered to all network schools in December 1997, and again in November 1999 as the project drew to a close. The surveys were sent to a contact person at each network school, who distributed the instruments to faculty, then collected and returned completed surveys to Quest staff.

Another instrument completed by Quest participants at the close of the project was an Innovation Configuration Checklist detailing the essential components of Quest as well as variations

thereof (see Appendix F). All network participants in attendance at the February 2000 rallies were administered the checklist. Five Bending Knee team members completed the checklist.

Other data sources included achievement data from the state-mandated standardized Stanford Achievement Test and data gathered during Bending Knee participation in Quest-sponsored events, including a technical assistance visit and project events.

Identical instruments and individual and group interview protocols were used across the four case study sites to allow for comparative analyses, should staff consider such comparisons useful.

BENDING KNEE ELEMENTARY SCHOOL

Context

Bending Knee Elementary is located in a small town in a rural southwestern coal-mining West Virginia county. The county struggles with poverty and unemployment, with 32.8% of the population in 1993 living below the federal poverty line and an unemployment rate in 1996 of 12.4% (U.S. Census Bureau).

The school serves approximately 220 students in grades pre-K-6, and average class size is about 16.1. Five classrooms in the school contain split grades. The staff includes the principal, 15 teachers (including one speech therapist, two special education teachers, and one Title I teacher), five service personnel, and three cooks. The staff is experienced: All have taught for more than six years and nearly half for more than 15 years. Sixty-two percent of certified staff hold a master's degree with 30 or more hours of additional graduate credit.

Most of the Bending Knee staff have worked for their entire professional lives at this school. Because of the community's small size, many staff are related. For example, two pairs of sisters and one husband and wife are on the faculty. Others are cousins or good friends. Only two staff live outside the attendance area; they drive about an hour from a city in an adjoining county (Sattes, forthcoming).

One hundred percent of the student population is White, and about 70% qualify for free or reduced-price lunches. Twenty percent qualify for special education services. The attendance rate during the 1997-98 school year was 94%.

Bending Knee has instituted a number of reforms, including the provision of a Family Center, staffed by a part-time parent coordinator, in which parents, other relatives, and community volunteers are welcomed. During the 1997-98 school year, 98% of parents had attended at least one meeting in the building. And during the 1998-99 year, Bending Knee clocked more than 12,000 volunteer hours (Sattes, forthcoming). The school also began a "telephone tree," through which every parent received a monthly call from other parents to share upcoming school activities and to solicit comments and feedback about the school.

The school works with other community agencies and has partnerships with a local lumber company, a health association, and the town's community outreach organization. One particularly successful partnership has been with a nonprofit organization in the community funded by a large foundation. With assistance from the organization, the principal has written several grants that have been funded to allow the school to offer such programs as the following:

- a half-day preschool program for four-year-olds
- the MicroSociety program, staffed by a part-time parent and requiring many extras in the way of supplies, materials, and equipment

- an after-school tutoring program serving 70 children and staffed by volunteer parents and high school students (Sattes, forthcoming)

In cooperation with two other county schools, Bending Knee received notice in February 1999 of the award of a 21st Century Community Learning Center grant—$326,000 per year for three years to provide after-school and summer programs. The schools offer both an academic track—including basic reading and math, hands-on science, and creative writing—as well as a track of courses in recreation and arts to include such programs as traditional sports (basketball, baseball, and football), karate, gymnastics, piano, and arts and crafts.

Involvement in Quest

Bending Knee Elementary became involved in the Quest network in November 1997 when seven school community members attended the first rally in Nashville, Tennessee. The team included the principal, teachers, a classroom aide, and a parent. Following their initial participation in the rally, Bending Knee staff attended every Quest event. Three school community members participated in the 1998 Scholars program, and two in the 1999 program. The entire teaching staff attended the 1998 summer symposium in Gatlinburg, Tennessee, along with three students who participated in a presentation about the school's MicroSociety program.

Other activities associated with Quest included Quest staff and Bending Knee principal Eva Ellison's[1] participation in the Creating Communities of Continuous Inquiry and Improvement (CCCII), directed by the Southwest Educational Development Laboratory (SEDL). This project has convened school staff and research and development professionals in an effort to review the research on learning communities and identify strategies and procedures necessary to develop such communities. SEDL staff and Co-Developers, as collaborators are called, have designed approaches, processes, tools, and materials to assist schools in becoming professional learning communities. Co-Developers are currently piloting these products in schools, documenting their work, and identifying product characteristics that may require refinement.

Through Quest, Bending Knee staff were introduced to Questioning and Understanding to Improve Learning and Thinking (QUILT), a program also developed by Quest staff. QUILT is a program derived from research about constructive classroom questioning strategies as well as professional development techniques effective in sustaining changes in teacher practice. The key elements of QUILT are as follows:

1. *Training for local facilitation teams*. Teams attend an intensive, five-day national training where they learn how to facilitate QUILT with their own faculty.
2. *Initial teacher training (induction)*. Three-day, on-site training to establish the knowledge base about effective classroom questioning.

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[1]All individual and school names in this report are pseudonyms to protect the anonymity and confidentiality of participants.

3. *Support for teachers (collegiums and partnering)*. Seven 90-minute seminars provide opportunities for teachers to (a) share successes and problems, (b) review content, (c) practice and apply QUILT behaviors, (d) plan for classroom use, and (e) plan for observations by a partner. Each teacher observes and is observed by a partner on six occasions during the school year.
4. *Technical assistance for local facilitation teams*. Local teams attend a two-day booster workshop to learn more about facilitating the change process and providing support to teachers.
5. *Evaluation*. Three instruments are used to monitor the implementation. (AEL, 2000)

FINDINGS

Innovation Configuration Checklist

Quest staff developed an Innovation Configuration Checklist (ICC) specifying the essential components of the project and variations thereof. The ICC was administered to Quest leadership team members at the February 2000 rallies for elementary and high school networks. With a Cronbach alpha of .78, the overall scale possessed sufficient reliability for this administration. Items 1-7 provide four variations for respondents to select among; item 8 provided 3 options. For purposes of analysis, items 1-7 were converted to a 4-point Likert-type scale, with 3 representing the most ideal variation of components and 0 representing the least satisfactory variation. Similarly, item 8 was converted to a 3-point Likert-type scale. The overall scale score may range from 0 to 23.

Five Bending Knee Elementary Quest team members completed the ICC; results from this administration are presented in Table 2. With a mean of 2.80 (SD .45), respondents appeared to think that their leadership team was inclusive with administrator, teacher, and parent membership; had been fairly stable over time; and had assumed active leadership in taking the quest for continuous improvement back to their school. Respondents agreed that their school administrator was an active member of the Quest leadership team and extensively involved in project activities (3.00, SD .00). Bending Knee team members also agreed that individuals in the school had participated in three or more network events during the past year (3.00, SD .00). A wide cross section of the school community participated in Quest Co-ventures in Learning, according to most respondents (2.75, SD .50).

Table 2
Innovation Configuration Checklist Descriptive Statistics

Item	N	Mean	SD
Quest school leadership team	5	2.80	.45
Administrative support	5	3.00	.00
Participation in network events	5	3.00	.00
Participation in Quest Co-ventures in Learning	4	2.75	.50
Involvement with other Quest schools	5	3.00	.00
School improvement/action research	5	3.00	.00
Change in schoolwide view of school improvement	5	2.60	.55
Engagement in related school improvement efforts	5	2.00	.00
Scale	4	22.25	.96

Bending Knee had been directly involved in sharing successful practices with other Quest schools by either adopting a practice learned from a sister school or helping a sister school adopt a practice used effectively at Bending Knee (3.00, SD .00). In addition, Quest team members reported that their school had been implementing a school improvement project in connection with their involvement in the network and was collecting data to demonstrate its impact on student learning.

With a mean of 2.60 (SD .55), respondents thought that their school community had been significantly influenced by the Quest approach to school change, was widely aware of the Quest framework, and was committed to work on one or more of the component parts of the framework. Team members also reported that Bending Knee had been actively engaged in other school improvement efforts, the results of which have been recognizable (2.00, SD .00). Finally, the overall scale score of 21.60 indicates that Bending Knee team members believed their school had participated to a great degree in the essential components of the Quest project. Also of note are the standard deviations of .00 for five of the eight ICC items, indicating unanimously high ratings.

Reflective Assessment Findings

Seven Quest team members completed the Reflective Assessment Questionnaire. This instrument asks respondents to rate their school's convergence with a description of a school representing a "100" on a scale of 0-100 in increments of 10 with respect to each component from the Quest framework of continuous improvement. They were then requested to cite evidence or examples supporting their rating and describe the ways, if any, in which Quest made an impact on their school's development with regard to the component under consideration. Finally, respondents were asked what factors other than Quest had influenced their school's development.

Overall, Bending Knee Quest team members completing the Reflective Assessment instrument seemed to think that their school approximated descriptions of each component quite well (see Table 3). Three components of the Quest framework received the highest mean rating of 92.86: strengthening the learning culture, sharing leadership, and enabling SMART learners. Assessing and demonstrating learning received the lowest mean rating of 90.00, although even this is quite high on the 100-point scale.

With a mean rating of 92.86 (SD 4.88), Bending Knee Quest team members appeared to believe that their school coincided closely with the description on the Reflective Assessment instrument of a school with an appreciable culture for learning. Six of the seven respondents provided answers with multiple themes when asked on what they based their ratings. Continuous self-evaluation was mentioned four times; "We are constantly reevaluating our curriculum and then resetting our goals at this school," wrote one team member. The school's implementation of MicroSociety was noted in four instances as evidence of a thriving culture for learning, as was the use of the Protocol process. Reported twice were weekly curriculum meetings, and the institution of "celebrations of learning" was cited thrice. The remaining themes were idiosyncratic: the development of a new report card system; the institution of various programs, such as a character education initiative, QUILT, inclusion, after-school programming, whole language, and multiage

classrooms; the use of the state-mandated Unified School Improvement Process (USIP); significant parent involvement; and student motivation to learn.

Table 3
Reflective Assessment Descriptive Statistics

Quest Framework Component	N	Mean	SD
Strengthening the Learning Culture	7	92.86	4.88
Broadening the Learning Community	6	91.67	4.08
Sharing Leadership	7	92.86	4.88
Shared Goals for Learning	7	92.57	7.28
Assessing and Demonstrating Learning	7	90.00	.00
Enabling SMART Learners[2]	7	92.86	7.56

Asked in what ways, if any, Quest had made an impact upon the school's learning culture, two of seven offered replies containing more than one theme. Two responses indicated that Quest had provided ideas and information and four that it had introduced staff to various techniques for enhancing learning culture. Two respondents reported that the focus on the SMART learner component of the Quest framework had contributed to the school's growth. Also mentioned twice was the support engendered by participation in the network of schools, while one respondent specified that the entire project "provided the support, both info [sic] and emotional, necessary to 'step into the unknown,' to not only 'think differently' but to 'be different.'" One respondent each reported that Quest provided "objective opinions/advice/viewpoints" and offered support as the school undertook action research.

Six respondents described other factors influencing the school's development with regard to the learning culture, two of whom provided answers with multiple themes. Mentioned twice each were participation in another professional development endeavor, the institution of MicroSociety, and the school's sense of mission. The administrator's efforts were noted twice. One such respondent put it this way: "Our principal is the driving force behind improvement in our school. Sometimes she drags us behind her . . . kicking and screaming, but she is unstoppable and usually right!" One team member simply cited teachers' efforts to reach all children.

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[2]Developed by Quest staff, SMART is an acronym for Successful, Motivated, Autonomous, Responsible, and Thoughtful.

Rated equally as high was the component of sharing leadership for learning, with a mean of 92.86 (SD 4.88). Six of the seven respondents cited the variety of staff, student, and school community governance committees as evidence of their school's attention to shared leadership. These included the Local School Improvement Council (LSIC), faculty senate, and curriculum team meetings. For instance, one team member reported, "Any decision[s] made which will directly affect teachers, parents, or students are made by representatives from each of these groups." Three respondents offered additional evidence, from student legislature to parent involvement to the school administrator's commitment to sharing leadership.

Respondents reported that Quest had made an impact on shared leadership in several ways; one of these provided an answer with two themes. Three team members thought that student involvement in the school had been enhanced due to the school's participation in the project. Another reported that, "Since our involvement with Quest, we have increased the depth (not just quantity, but quality) of parent involvement. As parents become more involved, their 'voices' become louder." One team member described becoming a better listener: "The training I have received in active listening and reflecting has increased my awareness of my weakness in the area of listening to and valuing others' opinions." Two respondents merely noted that Quest supported shared leadership in general or in terms of techniques. According to another respondent, however, the principal "has always been willing to share her leadership."

Only four of the seven team members replied when asked what other factors influenced Bending Knee's development with regard to shared leadership. One responded that the principal has "'too many irons in the fire' to control everything herself. She needs our help." Another reported that having the "experience and time to grow" had been important. The implementation of MicroSociety and the variety of teaching strategies employed in the school were significant factors to another respondent. According to yet another team member, the principal's "background in psychology may have influenced her knowledge of how to deal with her staff and the community."

The third component with a mean rating of 92.86 (SD 7.56) was "enabling SMART learners". Two of the seven team members offered multiple responses when asked to provide evidence of the school's close approximation of the description on the instrument of a school at 100 on the scale in terms of nurturing SMART learners. Five respondents reported the institution of MicroSociety as confirmation of their efforts to support learners. Said one such respondent, "Student[s] play an active role in the running of the school. They have jobs, they own businesses, etc. Teacher[s] focus on teaching them how to think instead of how to memorize facts. They produce work instead of filling in the blanks." Responsible student behavior was cited as substantiation by three team members; as one put it, "The students are taught they that they are as much responsible to learn as the teachers are to teach them. They understand where they are strong and where they need extra time and help. They are learning about the consequences of their decisions." One respondent listed a variety of school undertakings, including the incorporation of findings from brain-based research into the classroom, the adoption of QUILT, and the 21st Century Community Learning Center grant awarded the school in 1999.

Asked in what ways Quest had influenced the school's development in terms of enabling SMART learners, four respondents offered replies with multiple themes and one did not respond. Two mentioned that the Protocol process had made an impact, while a third simply reported that Quest "provided us with a method to improve an existing program and involve all the stakeholders in the process." Two team members indicated that the SMART parent workshops presented by school staff to community members and parents had contributed to the school's growth. One respondent each suggested that attending the rallies devoted to nurturing SMART learners had been "a shot in the arm you need to stay focused on the right road," introducing the school community to the SMART theme, reinforcing the theme with students, and enabling staff to reflect on their instructional practices. One other respondent indicated that Quest had led to involvement in QUILT and had brokered access to various resources.

Five of the seven respondents noted additional factors influencing the school's development in enabling SMART learners, two of whom provided multiple answers. All five included MicroSociety as contributing to Bending Knee's growth. "MicroSociety is a perfect program for enabling SMART learners. It requires all the components in SMART. When we realized how evident it was that Micro encompassed all these aspects we were so pleased to have implemented such a program," reported one team member. Also mentioned were involvement in QUILT and training in how to make use of findings from brain-based research.

Although only 2.86 points lower than the three highest rated components, assessing and demonstrating learning was the framework component rated lowest on the 100-point scale by Bending Knee Quest team members (90.00, SD .00). Five of the seven respondents offered answers with multiple themes when asked to provide evidence for their rating of the school's similarity to the description on the Reflective Assessment instrument. Mentioned five times was the annual analysis, disaggregation, and dissemination of standardized test results among school staff. One such respondent explained the process in this way: "The disaggregation of test data begins with the Local School Improvement Council and continues with the faculty senate. This is then reported to parents via the USIP [Unified School Improvement Plan]." Another respondent noted that test data were analyzed annually, but the respondent did not report the process by which data were shared. Also noted in five instances was the variety of instructional and assessment strategies employed at Bending Knee. One respondent elaborated, "Teachers assess students' work through portfolios, antidotal [sic] records, performance assessments, etc." Three team members noted the use of rubrics, and two the implementation of an alternative grading card system. Other responses were idiosyncratic, including mention of the use of multiple data sources to provide further assessment information, the provision of reflection time to allow teachers to appraise their students' and their own performance, and the use of QUILT techniques as additional strategies to enhance assessment.

Five Bending Knee team members replied to the item requesting description of the ways, if any, in which Quest had made an impact on the school's development with regard to assessing and demonstrating learning. Three respondents reported that involvement in Quest had led staff to reevaluate their assessment strategies and make needed changes, including the use of portfolio assessments and the development of a grading rubric to replace the traditional report cards. One of these respondents specified that the support and networking offered through Quest had enabled the

school to undertake changes in evaluation. The remaining replies were unique. One team member indicated that teachers engaged in more reflection than before their participation in the project. Another reported, "The way we assess writing has been a result of our opportunity to attend a Quest training on Kentucky's method of assessing writing."

Of the five respondents who answered the item about other factors influencing the school's growth in terms of assessing and demonstrating learning, two offered multiple answers. Noted twice was involvement in another major school improvement endeavor prior to Quest. Mentioned once each were school district professional development on whole language instruction, LSIC analysis and dissemination of test data, MicroSociety, state mandated standards and recommended instructional practices, the USIP, and involvement in QUILT.

Professional Learning Community Findings

In November 1999, Bending Knee staff completed a post-test of the *School Professional Staff as Learning Community* survey developed by Hord (1997; Meehan, Orletsky, & Sattes, 1997) and based on research about the attributes characterizing learning communities. This instrument consists of five main subsections: shared leadership, shared visions, collective creativity, peer review, and supportive conditions and capacities (Cowley, 1999). Subsections contain several individual items respondents are asked to rate using a 5-point Likert-type scale, with anchor points of low (1) and high (5). However, the field test of the survey revealed that it measures one overall construct rather than five distinct factors (Meehan, Orletsky, & Sattes). This construct could be described as the extent to which school staff constitute a supportive professional learning community. Therefore, an overall score is calculated for the instrument; the higher the score, the more respondents feel their school is a positive learning community. The instrument contains 17 items, and the overall score may range from 17 to 85 points.

Bending Knee staff completed a pre-test of the instrument in November 1998. A year later, their overall instrument rating jumped from 49.30 (SD 10.57) to 73.69 (SD 4.64), indicating substantial growth in their perception of themselves as a professional learning community. In addition, the much smaller post-test standard deviation suggests that staff assessments of the school coincided to a greater degree than they had on the pre-test.

A *t* test of total Professional Learning Community pre- and post-test scores revealed that the differences were likely not attributable to chance. It should be noted that the assumptions of the *t* test were violated in this study. The sample was not random, nor was it assumed that the data were drawn from a normally distributed population. Phillips (1982) contends, however, that "since those assumptions now appear to be far less important than originally thought, the recent trend toward increasing use of distribution-free tests is currently being reversed" (p. 139). Likewise, Glass and Hopkins (1984) report research suggesting that violation of the assumptions of normality and homogeneity of variance has little impact upon the robustness of *t* tests. For these reasons, Quest staff chose to use the *t* test to explore the statistical significance of pre- and post-test differences on the Professional Learning Community instrument.

Table 4
***t* Test Results for the Professional Learning Community Instrument**

Administration of Professional Learning Community Instrument	N	Mean	SD	*t*	Sig.
Pre-test total score	14	49.30	10.57	7.612	.00*
Post-test total score	13	73.69	4.64		

* Statistically significant at the .05 level.

The t-value of 7.612 was significant at the .05 level of statistical significance, indicating that the differences in mean ratings were likely not due to chance. Statistical significance alone, however, does not indicate the meaningfulness of findings; rather, it indicates the rareness of findings. The calculation of effect size allows the conversion of statistically significant results into the standard deviation metric, providing a better analysis of practical significance. Thus, the effect size was calculated to estimate the practical significance of the pre- and post-test scores expressed in standard deviation units. With an effect size of $d = 2.29$, it is very likely that the increase in scores on the Professional Learning Community instrument has both statistical and practical significance. In fact, an effect size of this magnitude is well above Cohen's (1988) convention in which large effect sizes are those between $d = .80$ and $d = 1.00$. Hence, this effect size represents substantial growth in the learning community at Bending Knee.

Student Achievement

The Stanford Achievement Test, ninth edition (or Stanford 9) is administered annually to students in grades three through eleven as mandated by the West Virginia state department of education. According to two reviews of the test (Berk, 1998; Haldyna, 1998), the Stanford 9 is among the most comprehensive and psychometrically sound standardized tests available. The ninth edition was normed in 1995 and content was altered to address changing curriculum requirements as well as trends in performance assessment.

Stanford 9 student-level data were made available to the evaluator for Bending Knee students in grades three through five. Four years of data were available for third-grade students, three for fourth graders, and two for fifth graders. Mean national percentile scores for these are presented in Tables 5, 6, and 7.

As seen in Table 5, 2000 Stanford 9 mean national percentile scores were higher than 1997 scores in each section of the test. Scores on the math and total basic skills sections steadily increased between 1997 and 2000. Reading scores dipped very slightly in 1999 before increasing by 12.55 percentile points in 2000. Somewhat differently, third-grade language scores rose consistently between 1997 and 1999, then decreased by 3.01 percentile points in 2000. Overall, third-grade scores revealed an improvement trend between 1997 and 2000, the years encompassing Bending Knee's participation in Quest.

Table 5
Third-Grade Stanford 9 National Percentile Scores

Stanford 9 Section	Test Year	N	Mean	SD
Reading	1997	16	47.63	26.59
	1998	14	63.86	25.45
	1999	16	62.69	26.33
	2000	17	74.24	24.00
Language	1997	16	52.81	31.24
	1998	14	64.64	19.68
	1999	16	76.13	22.74
	2000	17	73.12	23.40
Math	1997	16	45.25	30.42
	1998	14	63.07	25.68
	1999	16	73.13	20.99
	2000	17	84.53	14.10
Total Basic Skills	1997	16	49.75	27.47
	1998	14	65.00	21.46
	1999	16	71.00	21.37
	2000	17	79.18	15.73

Fourth-grade scores collected between 1998 and 2000 are shown in Table 6. Language, math, and total basic skills mean national percentile scores improved steadily between 1998 and 2000. Reading scores, on the other hand, declined in 1999, then increased in 2000, although not to their 1998 levels.

Mean national percentile scores for fifth-grade students are shown in Table 7. Scores declined between 1999 and 2000. Decreases ranged from 3.99 percentile points for language to 8.90 points for math.

Mean national percentile scores were also calculated for grades three, four, and five combined. As presented in Table 8, language, math, and total basic skills scores rose consistently between 1997 and 2000. Differences in 1997 and 2000 scores ranged from 18.33 percentile points in language to 28.26 points in math. Reading scores, on the other hand, rose in 1998, fell in 1999, then increased again in 2000, although not quite to their 1998 levels.

Table 6
Fourth-Grade Stanford 9 National Percentile Scores

Stanford 9 Section	Test Year	N	Mean	SD
Reading	1998	19	62.21	27.35
	1999	15	51.53	26.65
	2000	16	58.69	21.09
Language	1998	19	60.32	21.34
	1999	15	64.67	24.07
	2000	16	78.06	16.02
Math	1998	19	57.68	32.26
	1999	15	63.20	24.01
	2000	16	68.69	19.65
Total Basic Skills	1998	19	60.00	26.72
	1999	15	58.80	22.39
	2000	16	68.56	16.05

Table 7
Fifth-Grade Stanford 9 National Percentile Scores

Stanford 9 Section	Test Year	N	Mean	SD
Reading	1999	17	57.82	27.86
	2000	16	50.13	25.80
Language	1999	17	66.12	24.10
	2000	16	62.13	24.92
Math	1999	17	73.53	25.01
	2000	16	66.63	28.28
Total Basic Skills	1999	17	67.35	23.01
	2000	16	60.44	23.85

Table 8
Combined Grades Three Through Five Stanford 9 National Percentile Scores

Stanford 9 Section	Test Year	N	Mean	SD
Reading	1997	16	47.63	26.59
	1998	33	62.91	26.17
	1999	48	57.48	26.68
	2000	49	61.63	25.53
Language	1997	16	52.81	31.24
	1998	33	62.15	20.45
	1999	48	69.00	23.69
	2000	49	71.14	22.39
Math	1997	16	45.25	30.42
	1998	33	59.97	29.34
	1999	48	70.17	23.41
	2000	49	73.51	22.48
Total Basic Skills	1997	16	49.75	27.47
	1998	33	62.12	24.39
	1999	48	65.90	22.38
	2000	49	69.59	20.04

Tests of statistical significance were run to discern any significant increases in student performance over several years of Bending Knee's participation in Quest. Analyses of variance (ANOVA) revealed five statistically significant Stanford 9 increases for grades three and four. With an *F* ratio of 3.219 (*F* probability of .029), reading scores were statistically significantly higher in 2000 than they had been in 1997. Likewise, improvement in third-grade language scores were statistically significant, with 1999 scores exceeding 1997 scores (*F* ratio of 2.862, *F* probability of .044). Third-grade math scores were statistically significantly higher in both 1999 and 2000 than they had been in 1997 (*F* ratio of 8.300, *F* probability of .000). Third graders in 1999 and 2000 also scored at significantly higher levels than had those in 1997 on the total basic skills inventory (*F* ratio of 5.300, *F* probability of .003).

One statistically significant difference was located among fourth-grade scores. Fourth graders in 2000 scored at significantly higher levels than had their counterparts in 1998 (*F* ratio of 3.362, *F* probability of .043).

T tests were run to explore whether the 2000 declines in fifth-grade scores were statistically significant. The calculations revealed no statistical significance. Therefore, it may be assumed that such decreases were likely due to chance.

Table 9
Statistically Significant Stanford 9 National Percentile Score Increases by Grade, 1997-2000

Stanford 9 Section	Grade Level	df	*F* ratio	*F* probability	Significant Differences by Testing Year
Reading	3	3 59	3.219	.029*	2000 > 1997
Language	3	3 59	2.862	.044*	1999 > 1997
	4	2 47	3.362	.043*	2000 > 1998
Math	3	3 59	8.300	.000*	1999, 2000 > 1997
Total Basic Skills	3	3 59	5.300	.003*	1999, 2000 > 1997

* Statistically significant at the .05 level.

Three statistically significant increases were found among scores combined from the third through fifth grades. Bending Knee students scored statistically significantly higher in 2000 than in 1997 on the language section of the Stanford 9 (*F* ratio of 3.002, *F* probability of .033). Math scores in both 1999 and 2000 were significantly higher than in 1997, with an *F* ratio of 6.046 and an *F* probability of .001. Test takers in 2000 scored at statistically significantly higher levels than those in 1997 on the total basic skills inventory (*F* ratio of 3.255, *F* probability of .024).

Statistical significance alone, however, does not indicate the meaningfulness of findings; rather, it indicates the rareness of findings. The calculation of effect size allows the conversion of statistically significant results into the standard deviation metric, providing a better analysis of practical significance.

Effect sizes for statistically significant third-grade increases ranged from small ($d = .37$ for language, $d = .39$ for reading) to moderate ($d = .50$ for the total basic skills inventory, $d = .63$ for math). For the statistically significant increase in fourth-grade language scores, the effect size was small, with $d = .37$.

Effect sizes for statistically significant growth in combined third through fourth grade scores were similarly small. With an effect size of $d = .24$, language increases were small. And with respective effect sizes of $d = .35$ and $d = .26$, growth in math scores and total basic skills scores was also small.

Table 10
Statistically Significant Stanford 9 National Percentile Score Increases of Combined Grades, 1997-2000

Stanford 9 Section	df	*F* ratio	*F* probability	Significant Differences by Testing Year
Language	3 142	3.002	.033*	2000 > 1997
Math	3 142	6.046	.001*	1999, 2000 >1997
Total Basic Skills	3 142	3.255	.024*	2000 > 1997

* Statistically significant at the .05 level.

In sum, then, improvement trends are apparent at Bending Knee between the years of 1997 and 2000. Although some of the growth is likely not due to chance alone, only third-grade math and total basic skills score increases seem to possess any practical significance. Quest may have influenced the improvements in achievement at Bending Knee; however, such growth is relatively limited. Given that these findings are nonetheless promising, the school may see further growth as staff continue to implement Quest-related initiatives.

Focus Group and Individual Interview Findings

Quest Activities

Protocol

During the 1999-2000 school year, Bending Knee staff began using the Protocol process, of which they had learned during an SCC meeting, in an effort to improve student writing. This technique provides a structured means for staff to examine student work, offer supportive ("warm") and critical ("cool") feedback about the design of the work, and reflect on the best ways to improve similar assignments. An aide described the process in this way: "I think it's helped the teachers a lot. . . . They talk about what they could do and what they shouldn't do and you know the things that's going to help a lot better." During a faculty focus group, teachers had the following exchange about using Protocol:

Teacher 1: And we bring writing samples that our students have done in class and share it with all the teachers.

Teacher 2: And problems.

Teacher 3: Yeah, brainstorm and kind of help those children that are low or not doing what we think they should be.

And during a second faculty focus group, teachers reported the following:

Teacher 1: Well we've done the Protocol. We've been Protocoling like once a week about our writing. We feel we, we pinpointed that one weakness in our school was our writing skills, so we decided that we would Protocol around that problem, that idea, and we meet once a week to discuss and present the students work in the protocol process.

Teacher 2: I thought it was difficult it first until we kind of got into a routine with . . . the idea that just like wait time, it's hard not to interfere with each other's Protocol system when you've got to sit back and be patient and wait until, you know, we kind of reflect on what you're going to say and I don't, I don't know how the rest of them felt, I thought it was difficult to begin with, but it, it became easier.

Teacher 3: Well, it was a little intimidating . . . because when they said, "warm feedback, cool feedback," you know, I thought, "Hey, they're going to come in here and blast us for what we're doing," you know, "You're not doing the right things," and . . . you don't want to be under the gun.

Teacher 4: No it's good . . . . We don't ever have anyone say anything bad about what you do. You know they'll say, "Well, you know, maybe we could have done it this way," or something, but there's no blasting at all, so it's real good.

Protocol Results

Bending Knee staff reported a number of positive outcomes from their participation in the Protocol process. Successful results were mentioned in 31 comments from interview and focus group participants. Noted in 10 instances was the way Protocol facilitated the sharing of ideas among faculty. As one such respondent phrased it, "You know, there's things that you forget over the years . . . and then in the meeting somebody will bring it up and say, 'Oh yeah, I remember now.' You know, I draw on my hand and put my subject in the palm of my hand and then write the ideas on the fingers. I forgot that, I did it years ago but I forgot. Somebody brought it up, and I've been doing it again. My kids love it." Another reported, "It's been a good experience in that we have learned, we've talked to other people about what they do in their classrooms and we find out what they do and then it works and then we try it and it's a good way of sharing and springboarding off of other people's

ideas. Maybe you didn't exactly do it the way they did, but you would get an idea and then you would elaborate on that."

One faculty focus group participant additionally observed that the Protocol process allowed ideas to be shared among teachers of different disciplines: "It's helped me a lot listening to the language arts teachers apply some stuff I'd forgotten in teaching math . . . . It helps, to hear them come back at you."

Five comments were made concerning the increase in collaboration among teachers, particularly in terms of the enhanced focus on student work and improving instruction. As one teacher put it, "I think one of the most impacting things has been forcing us to meet with each other and forcing us to look at each other's teaching and to help each other. For me that's been the most impacting thing because I get to hear what other people are doing and we get to discuss it and the Protocol process and all has been a real focus for me . . . . I've gained things from teachers that I would have never in the past because we never got to meet with each other before and even if we did it was never in a situation where we really sat down and [asked], 'What are we doing in class, what was good about it, what do we need to improve?' and we do that now." An interviewee said, similarly, "Well, they [were] talking and everything but . . . just, you know, unless you do just get together for lunch or something you just talk about other things. But now when you do Protocol it's about the school, it's about the students." According to these respondents, Protocol enabled more collaboration and communication centered on issues of pedagogy.

Informal assessments of improvements in student writing were noted five times, and one teacher reported writing more herself than she had previously. Two comments suggested that teachers held increased expectations for their students since the use of Protocol. Another two indicated that the development of rubrics to assess writing had been an outcropping of faculty participation in the Protocol process.

The remaining comments were idiosyncratic. One interviewee reported an increase in writing across the curriculum, while another believed that preschool students were more prepared to undertake journal writing in the following grades because the preschool teachers had introduced the notion to them. A new focus on the entire school was a result seen by one teacher. As she reported, "I think one thing is we've taken ownership of the whole school and not just ownership of our class. You know . . . when I had my fourth grade in here this is, that's not just my class, that's our class because we all have to work with those students and I think that's one positive thing, one really good thing that's come out of this is we've been more open to share the good things about the students as well as the bad things about the students and then work toward fixing and improving what we can."

The ability to gauge the performance of one's own students vis-`a-vis those of other teachers was an outcome reported by one interviewee. Another believed that test scores overall had risen, while yet another simply noted that Protocol had helped the school grow.

Focus on Enabling SMART Learners

All five staff members interviewed indicated that they had collectively focused on the Quest framework component of enabling SMART learners. Three comments from two interviewees suggested that this focus made implicit sense to them. As one put it, "I think that's the core. To me it's the core. I don't know what the other staff members would say, but I think having successful, motivated, autonomous, thoughtful learners is . . . the product that comes about because of Quest, the impact you make on children and, and I think as we look at those that's where we gear everything to . . ."

Asked to elaborate on what this focus had generated, one respondent reported that the adoption of QUILT and the use of the Protocol process had grown out of the concern to nurture SMART students. "I think we're learning a lot from each other, where we were never doing that in the past," said another interviewee.

According to the principal, the concentration on SMART learners led to increased expectations for the achievement of all students in the school. As she phrased it, "I think higher expectations for all children. You know I think we, I think we had a high expectation for children but I think sometimes we left the word 'all' out . . . but I think that the strategies that we've learned to use through Quest, we don't look at just the top kids and what their writing looks like, we look at all kids and sometimes it's the kid who's having difficulty that the teacher brings their work to the Protocol."

A teacher believed that the focus on enabling SMART learners had enhanced collaboration among staff by concentrating their energies on nurturing all of the characteristics included in the acronym.

QUILT

Bending Knee staff were introduced to QUILT by Quest staff and implemented the program during the 1998-1999 school year. As the following exchange recorded during a faculty focus group indicates, school staff attended the initial QUILT training and then returned to train their colleagues.

> Teacher 1: It was the summer thing, I mean we spent what three days, we spent three days up to _____ Park and then they taught, they taught us what they had learned but it, it was very interesting but you know all this new stuff all at once and all these extra programs it takes you a while.
>
> Interviewer: How was it for you to present?
>
> Teacher 1: A total nightmare.
>
> Teacher 2: No, they did good, they did.

Teacher 1: I mean they seemed to accept it better from one of their own than someone else coming
in with it. I don't know. Did you feel that way?

Teacher 2: Yes I did.

Teacher 3: Yeah I did. You were a part of us and we didn't feel like fools in front of anybody strange, you know.

Teacher 1: I kind of thought, "Well, if they like it . . . if they could see some good in it . . ."

One interviewee found it difficult to begin using QUILT, but reported that the ongoing support built into the program had eased the challenges: "It was sort of difficult getting into it at first, you know, starting a new program. But since we've had meetings on it to keep us going it's been better."

Results of participation in QUILT were noted in five instances. According to two interviewees, students spent more time thinking before they responded to teacher prompts than they had previously. As one put it, "It has helped though because when I'm asking a question and even for K-1 . . . they want to talk out the answer just as fast . . . they don't even think, they just pop something out, right or wrong. And now when I say, 'Now, this is a QUILT question,' they will try to contain their self [sic] for just a little bit to think about [it] some, and they never did before."

Another respondent thought that students gave higher level answers to questions since the adoption of QUILT. One interviewee reported that the use of "wait time," or the provision of time following a question to allow students to think about their answers in some depth, had become institutionalized at the school, extending even into the preschool program.

On an individual and reflective level, one teacher found that participation in QUILT led her to question her practice more closely. She shared in an interview, "I think it makes me question myself as a teacher every day. Am I doing the right things with kids, and am I requiring them to do the things to make them SMART learners or to ask them the right kind of question? I know that was QUILT, but still through Quest we were involved with QUILT. And I really look at it now, and I do question . . . things we do here at school . . . . We look more closely at any type of program that we might get involved with before just jumping into it now."

Network Connections

Bending Knee participants in Quest reported a variety of ways involvement with the network of project schools had been important to their continuous improvement work. Twenty comments were made about benefits of the network to school staff, nine of which concerned learning new ideas and strategies from other participating schools. "You learn a lot . . . . If you just stay . . . within yourself, you don't really find a solution. It just, you know, it just bounces around. But if there's a

whole lot of talk, then you might be able to take a little bit from here and a little bit from there and . . . put it all together," reported one such staff member.

Another noted that networking allowed the school to draw upon schools with experience and expertise in areas of Bending Knee need: "For example, our technology, we were cited for not . . . using technology enough in our school, and the State Department came in. And Saint Margaret, which is another Quest school, came up and did some workshops with us. And . . . we're planning a site visit there. We were working on the writing process. We knew our writing scores were down, and we needed help with that. And we knew that Fred's school [had used Protocol to examine student writing]." According to one interviewee, the network also provided participating schools an opportunity to ensure that technical assistance provided by sister schools was of good quality. As she phrased it, "What's so nice is we can go and say, 'All right, we have this problem.' And they'll say, 'Okay this school does this, and this school does that, you know. So, you can see this school if you needed to talk about this. And this school is really good; they have really good technology. And this school does really good with the writing' . . . . That provides that networking for you or helps you find schools that normally you would, I mean you, who knows, you might find a school, but are they doing it well?"

Interviewees made three comments suggesting that the network allowed them to share experiences and ideas with staff from schools that were very different from their own nonetheless facing similar issues. Said one Bending Knee teacher, "I think the liaison . . . with schools who are probably even bigger than us, maybe even urban . . . who have the same difficulties and the same problems we have and discovering what solutions they use to overcome those problems helped us think [how to] overcome what problems we were going through."

Two staff members noted that new ideas and strategies were far more convincing when learned from other schools with experience implementing them. According to one such interviewee, "One or two people can read [about an innovation] and say, 'Oh yes, let's do this. This is great. Let's try this,' and try to convince the rest of the staff, for example. But it's never as impacting and as convincing as if you are networking with somebody who is already doing this process and it's worked." Colorfully, one participant said, "It helps those who are hanging on the pier screaming and shouting kind of take a step over into the water."

Two comments were made about the support offered through the network. Bending Knee principal Ellison shared, "They help me problem solve. And it may be just a small issue, it may be a big issue. But I think that when I fall down, I know that they fell down too and that they've gotten back up and that I can get back up too." She added, "I think . . . it's given us a leaning post when we're having trouble."

The remaining responses were idiosyncratic. One interviewee indicated that the network motivated her to work and achieve: "I know they all come from good schools. And their schools are high-achieving schools, and I want to be just as high as they are. It's given me a benchmark . . . to move toward." Another reported that participation in the Quest network had validated practice at the school, elaborating, "Even the way that we teach the things that we're teaching, the activities we do

here at school, it seemed like . . . when we would go [to a Quest event], we would hear, 'This is the thing another school's doing, and this is good.' And we're like, 'Yes, this is great, we are right.'"

Greater focus on improvement efforts was an outcome suggested by one participant, as a result of the accountability maintained within the network. "[AEL] coming here has been a big help because it really makes us focus more on what we're doing. They're coming, we know . . . we've got to be ready, and it really does make a difference." Relationships with Quest staff had been useful, according to another participant, because they offered what was interpreted as unbiased feedback: "I think having AEL staff, too, as part of the networking system has helped because you can bounce ideas, you have an objective point of view."

Three additional remarks were made about the value of networking with schools from other states. All pertained to the usefulness of learning that similar challenges confront schools in different policy and state contexts. "We never get an opportunity to network outside the state unless we attend a national conference or something and [then] it's not a long-term relationship building piece. But [Quest participation has] allowed us to see that at Fred's school they have state standards too, and at Dottie's school they have state standards. And they have assessment instruments, and so they're . . . traveling the same journey that you're traveling."

Bending Knee staff took advantage of the expertise of two sister schools during their involvement in Quest. Thirteen comments were made about the technical assistance site visit from staff at Saint Margaret, a small West Virginia parochial school, regarding their use of technology. Six interviewees described their presentation in a variety of positive ways, as "inspiring," "real good," and "very impacting." Four comments, on the other hand, revealed that the presentation had been fraught with logistical problems, including uncomfortable surroundings and difficulty with the sound level of the presenters. Although the presentation had been useful, according to two staff members, funds were not available to implement at Bending Knee many of the efforts described by Saint Margaret faculty.

The principal noted that teachers had begun to integrate technology into instruction, despite her earlier reluctance to make technology a priority. She elaborated, "I knew we were weak in technology . . . and frankly I didn't care. I didn't really believe that technology could do a whole lot to change instruction. But . . . in the fall, when my staff went to the rally and Saint Margaret did the workshop, they were calling me—you know I didn't attend—and they were calling me and saying, 'If we could be doing this in our classroom . . .' So we had them [Saint Margaret staff] in here in February, and they did a training for the staff . . . I've seen a tremendous difference in lesson plans and utilization of technology in the classroom. And I've even come to believe that technology is a good tool."

Four comments pertained to the technical assistance site visit provided by the principal of Bowman Elementary in Tennessee on the use of the Protocol process to examine student writing and improve instruction. "Fred's school . . . had focused on that and had quite a bit of success with that. And in fact we saw that at a Quest conference, and so Earl came and did some training with us on

Protocol and the writing assessment." As noted earlier, Bending Knee staff found the Protocol process to have been very useful.

Outcomes

Personal Outcomes

During interviews and focus groups, 15 comments were made about individual growth as a result of participation in Quest. Three interviewees noted that they engaged in more reflection about their individual and collective practice than they had prior to Quest. Said one such participant, "I think that it's made me step back and look at what I'm doing personally and professionally and reflect more . . . which I really had never done before we started . . . and think about what I did today and what do I want to change, what do I want to do better tomorrow. And I don't think any of us had ever really done that a lot and it's . . . made me do better."

Two respondents believed that Quest had reaffirmed their beliefs about education and change, giving them reassurance and support as they continued their improvement efforts. "I think when I first attended the first Quest conference . . . what sold me on Quest was that it reaffirmed the attitudes and beliefs that I already had, a lot . . . I'm a risk taker by nature and I like change . . . . I like change and challenge, and Quest . . . kind of reaffirmed those . . . thoughts," reported one interviewee.

New strategies had been learned and used by individuals, reported two staff members. Interestingly, two respondents also noted that their social interaction skills had been strengthened because of their involvement in Quest. As one explained, "With me, it helped a lot with the interaction . . . The first one [rally] I was like really scared because they took you and set you at a table with nobody you knew . . . And that helped me because by the last one it didn't matter because I was used to it."

The principal indicated two major behavioral changes as an outcome of her involvement in Quest. First, she believed she made a greater effort to approach students positively. And second, she reported learning to compromise with staff: "I look back at my first few years as a principal . . . My supervisor would say, 'Eva, you need to compromise,' and I said, 'No, I don't need to compromise. I'm the educator. I know what's best.' And she said, 'You'll be sorry if you don't compromise.' Well, I was sorry that I didn't compromise, but now I compromise. I do everything that I can do to find the solution if there is a problem or disagreement and deal with it at the site and not have my supervisor dealing with it." Such reflection about her practice was supported by the trusted feedback received from Quest staff, another theme reported by the principal.

The principal described the way Quest challenged her to continue improvement work at Bending Knee, explaining, "I think that we're all . . . on a road to improvement, and when you stop improving you die . . . . Quest has caused me to, to maintain the energy level that's required for continuous improvement. And without sometimes this outside organization pushing somewhat, and I'm not saying in a negative way but in a positive way, and maintaining high expectations for me as

a professional then . . . it causes me to rise to the occasion more than it, than possibly I would have without Quest."

Similarly, Quest enabled Ellison to reevaluate her understanding of the change process. She said, "I think I've come to understand over the last three years that it is a process and that we all change at a different rate . . . I think I'm much more patient as an administrator than I was because there were times where . . . we were beating each other up, you know, not physically, but in a sense . . . I think that using the processes like Protocol that we can bring about change in another way rather than me just saying, 'Here's an idea and I want you to do it,' and maybe they don't own the idea. But with Protocol they . . . gather ideas that they choose to own and they implement those as they are comfortable with [them] . . . I think probably that's the biggest change that's happened to me."

School Outcomes

Two respondents reported some general results of participation in Quest at Bending Knee. One interviewee indicated that the findings from the PLC corroborated her sense that collaboration among teachers had improved. "We're more open to discuss other things with each other now. . . . We have really grown a lot since we filled that [PLC] survey out to begin with," she elaborated.

Another interviewee thought that teachers used more student-centered instructional strategies as an outgrowth of their involvement in Quest. She said, "In particular . . . the teachers I think were challenged to let the learning process be more learner initiated." She also indicated that teachers focused more on writing, writing instruction, and questioning techniques that support higher level thinking. Particular initiatives were supported, in her opinion, by the increased sharing among teachers. She summed up her assessment of the impact of Quest on Bending Knee in this way: "I just think Quest is a pervasive thing that kind of permeates throughout everything . . . . I think the liaison that we have with AEL and Quest . . . has provided guidance in a lot of ways . . . an objective point of view . . . . It validates feelings that you think and gives you new ideas for ways to conquer things you think you can't."

Student Outcomes

Aside from results from the use of the Protocol process, QUILT, and the focus on SMART learners, interviewees reported several outcomes they thought were derived from participation in Quest in general. Three comments indicated that standardized test scores had increased progressively. One staff member said it this way: "I think that [through] the Quest program, I think that we were more open to new ideas and we were looking for an avenue in which to expand and improve education for our children as well as for ourself [sic]. And I think that the proof is in the pudding, as they say, just because our test scores are up. You know, they're not up drastically, but they are up. We've gained every year and I think that can be attributed to that."

In two instances, increased student writing was noted. Said one teacher, "Writing is a big thing. I see kids writing in class more, especially at the upper grade level where they weren't hardly

writing any before. Now they're writing a lot. I think the teachers are collaborating more with the students, and the upper grade teachers didn't really do that a whole lot before . . . . Because of Quest and because of the collaboration, now they're doing it. And I think it's going to make a difference in kids' achievement." Similarly, one teacher added that a Bending Knee student had placed in a state contest for young writers.

During one of the faculty focus groups, teachers discussed an improvement in discipline at the school since involvement with Quest:

> Teacher: Our discipline is much better and I think that goes to show that our kids are really happier with school because we . . . don't have very many bad discipline problems at all. Just minors, you know. Maybe not . . . bringing your homework in or something like that. We really don't have a bad problem with discipline.
>
> Teacher: I'd say in the last, in the last three years for sure, we've seen a lot better discipline. Don't you think? I mean the behavior in the kids . . .
>
> Teacher: Yeah, because when I first came here it seemed like we had a lot of discipline problems.
>
> Teacher: Biting.
>
> Teacher: And I've noticed an improvement.
>
> Teacher: Strife with the kids . . . now I think like the second to last three years about that, it's been much better.
>
> Teacher: They have a better attitude about themselves.
>
> Teacher: And they don't want to be in trouble.

Important to teachers at rural Appalachian Bending Knee is their students' sense of self-worth and efficacy. One interviewee reported that students appeared to have greater aspirations for their lives after school staff had been involved in Quest. As she phrased it, "The children write their self-concept, their career aspirations . . . . They're all showing positive signs, and kids feel better about themselves. More of them want to go to college."

CONCLUSIONS

A number of conclusions may be drawn from the data about the impact of Quest on Bending Knee Elementary.

Several factors may have contributed to the success of Quest at Bending Knee. The school has a history of undertaking improvement efforts, including the establishment of a Family Center, involvement with various external service providers, implementation of the MicroSociety program, and shared responsibility for implementation of a 21st Century Community Learning Center. In addition, Bending Knee possesses some of the advantages of small, rural institutions. For instance, staff are connected to each other in multiple ways (e.g., as colleagues, family members, and neighbors) and have close relationships with parents. At the same time, the school also confronts some of the challenges associated with rural schools, from remote location to an impoverished tax base. Such difficulties, however, have inspired staff to both respect the local community and work to educate its children well.

The school has been highly involved in the Quest network since its inception, with a diverse and stable team attending most project events. Bending Knee has implemented several school improvement strategies during their participation in Quest, most notably QUILT and the Protocol process.

The school closely approximates descriptions of schools committed to continuous improvement around each of the six Quest framework components. Quest team members believe that Bending Knee is particularly effective with regard to shared leadership, a strong learning culture, and enabling SMART learners.

Bending Knee staff view themselves as a professional learning community to a dramatically greater degree following their involvement in Quest. Staff now share instructional strategies, observe each other's teaching and provide feedback in nonthreatening ways, and explore together techniques to improve student writing and ask more effective questions. In addition, staff feel more connected to one another as they continue to undertake new improvement initiatives. Discussion of pedagogy takes place more often and in more depth than previously, according to staff.

Bending Knee Quest team members believe that Quest has made a significant impact on their personal and professional growth. They report learning new strategies for school improvement, becoming increasingly reflective about their practice, and experiencing affirmation of their beliefs about education and change. Such growth has in turn solidified their commitment to continuous improvement.

Although the school vigorously pursues improvement strategies other than those associated with Quest, the project may have influenced improvement trends in Stanford 9 scores between 1997 and 2000 during the school's participation in the network. Growth is apparent at Bending Knee, particularly in terms of third-grade scores on the state-mandated achievement test. Moreover, such increases are statistically significant, indicating that they are not likely due to chance. Effect sizes

suggest that two of the significant findings are of a moderate size, and therefore possess some practical significance. The remainder, however, are small.

Quest has made important contributions to the Bending Knee school community. School staff took part energetically and consistently in the project, attending all events with a diverse school team. Not only are staff more collaborative and collegial as a result, they have experienced substantial professional growth as individuals. Bending Knee undertook several specific initiatives through Quest, including use of the Protocol process to examine student writing and implementation of QUILT to promote more thoughtful classroom questioning practices and encourage students' higher-order thinking. The Quest framework for continuous improvement was a useful structure for school staff, who believed themselves to approximate it closely by the end of the project. And finally, achievement scores showed improvement over the course of the school's participation in Quest. Although such growth is not likely due to chance, much of it is as yet relatively small. Given the school's commitment to continuous improvement, energetic and collaborative staff, and ongoing use of improvement strategies, the school may continue to experience meaningful improvement following its involvement with the Quest project.

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APPENDIXES

APPENDIX A:

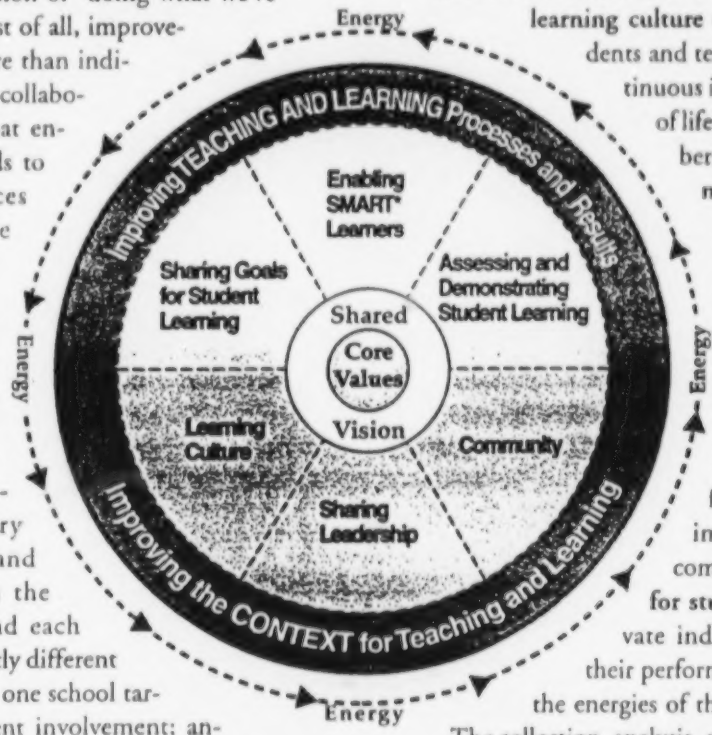
Quest Brochure and Framework for Continuous Improvement

Quest for Quality Learning Communities
A Program for Continuous School Improvement

School improvement is challenging work; to be effective, it must be continuous. Improvement is not a single act or program; it is a process of always wanting to learn more about how better to help all students achieve at higher levels. Improvement is visionary; it involves risk-taking, uncertainty, and a rejection of "doing what we've always done." Most of all, improvement requires more than individual effort: it is a collaborative endeavor that engages and responds to the diverse voices within an entire community.

Teams from 20 schools in a four-state region now collaborate with staff from the Appalachia Educational Laboratory (AEL) to study and learn together in the Quest project, and each school takes a slightly different path. For example, one school targets increased parent involvement; another hopes to raise the level of student thinking through teachers' working together and coaching one another; a high school improves teaching by listening to what students say about how they learn best; other schools focus on specific curriculum areas such as writing or science education.

The Quest framework unifies their thinking about school improvement. These **core values** offer a blueprint for continuous progress: ongoing questioning of practice, high expectations for all, individual responsibility for better performance, collegial sharing and support, and thoughtful reflection on practice.



Stemming from these values is a clearly defined **vision** of student excellence that is shared by all members of the school community. A strong **learning culture** encourages both students and teachers to choose continuous improvement as a way of life in their school. Members of the **school community** connect to one another through a shared commitment to improved learning conditions for all. **Shared leadership** encourages and enables everyone to assume responsibility for making a positive impact on the school community. **Shared goals for student learning** motivate individuals to improve their performance and help focus the energies of the entire community.

The collection, analysis, and **use of student assessment data** sustains continuous improvement, providing a measure of the effectiveness of the community's efforts. SMART learners are Successful, Motivated, Autonomous, Responsible, and Thoughtful. Fully equipped to become lifelong learners, they are ready for life and work in the 21st century. In short, continuous improvement spawns the **energy** and excitement necessary to transform a collection of individuals into a true learning community.

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Goals of the Quest Project

1. ***Connect* with colleagues.** By serving on a Quest leadership team, participants connect with others on their school team, forming bonds that enhance working relationships. In addition, Quest teams connect with teams from other schools, districts, and states, allowing everyone to learn from others' experiences. A listserv, inquiry@ael.org, facilitates connections across the network.

2. ***Create* a learning community.** Teams become part of the Quest network learning community with the expectation of recreating this experience in their own community.

3. ***Connect* with concepts and stories related to continuous school improvement.** At Quest rallies, the Quest framework is a source of study, dialogue, and sharing among teams.

4. ***Create* personal and shared meaning.** The Quest network places a high value on processes such as reflection and dialogue, which lead to deeper understandings of continuous improvement.

5. ***Commit* to continue learning with this community.** Quest schools have made a three-year commitment to study and learn together, with a focus on improving student achievement.

What is a learning community? "Learning communities are essentially communities of inquirers . . . sustained by a continued commitment to share this journey of exploration with one another on matters people care deeply about" (Ryan, 1995).

Peter Senge et al. (1994) write that a learning organization "is a place where people continually expand their capacity to create the results they truly desire, . . . and where people are continually learning how to learn together."

6. ***Commit* to continue the Quest back home.** The "rubber hits the road" at schools, not at Quest events. AEL helps school teams take their learnings home and apply them for the benefit of students. Site visits, called Co-Ventures in Learning, provide opportunities for AEL staff to visit each school, in order to better understand the context of that school's efforts, and tailor assistance to the school's needs.

The Quest project hopes to achieve results at three different levels:

- For individuals, sharing leadership on a Quest team leads to more reflective practice and renewed understanding of the concepts that support continuous improvement.
- For schools, Quest will provide motivation and support for ongoing and/or new school-based initiatives to improve teaching and learning.
- For the Quest network of schools, our collaborative learning and research will yield stories, insights, processes, and products—all of which will be helpful to the broader educational community.

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This publication is based on work sponsored wholly or in part by the Office of Educational Research and Improvement, U.S. Department of Education, under contract RJ6006001. Its contents do not necessarily reflect the views of OERI, the Department, or any other agency of the U.S. Government.

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APPENDIX B:

Quest Team Member Individual Interview Protocol

Quest Co-Venture 2 Interview Protocol

Instructions: We are interested in your perceptions regarding the difference Quest has made for you personally and for your school. Please respond to the focusing questions honestly and openly. There are no right answers, and we are sincerely interested in your personal assessment and reaction. Also, please be assured that your name will not be associated with any of your comments. We are committed to protecting your confidentiality and anonymity.

1. Personal/Professional: What impact has your involvement with Quest had upon your **personal and professional growth** and development?

If the respondent does not talk about the following areas of impact, the interviewer should probe for more information using the prompts below.

(a) In what areas have you increased your **knowledge and skills** as a result of Quest participation?

(b) What **attitudes or beliefs** have been challenged and/or modified through involvement with Quest?

(c) What **questions** have you been prompted to investigate?

(d) What **personal behaviors** have you changed or attempted to modify as a result of your involvement in Quest?

(e) What meaningful **relationships** have you developed?

2. School reform/improvement: In what ways has participation in Quest contributed to your **school's journey of continuous improvement**?

(a) Please describe specifically the **results** or outcomes for students and adults that you believe attributable to Quest.

(b) Think about the Quest **framework** and its six constructs. In which of these areas has your school become more focused?

Culture for Learning
Sharing Leadership
Community of Learners
SMART Learners
Assessing and Demonstrating Learning
Sharing Goals for Learning

(c) What is different now as a result of your school's focus on this component?

3. Value of Network: To what extent and in what ways has the Quest **network** supported the individual learning and school improvement you described above?

Additional prompts for further information below.

(a) What is the value of networking with others schools as we have done in Quest?

(b) Describe the value of relating to schools outside of your own state.

APPENDIX C:

Faculty Focus Group Interview Protocol

Quest Co-Venture 2
Faculty Focus Group Protocol

Thank you very much for participating today in this focus group interview. We're interested in learning more about what school improvement efforts you've undertaken here since your school's involvement in the Quest network.

Let me describe a few guidelines before we begin. First, we will be recording today's conversation. However, let me assure you that your name will not be associated with any comment you make. We will have the tape transcribed, but you will never be identified personally. This is to protect your confidentiality and anonymity. Second, the purpose of a focus group is to get everyone's candid viewpoint. No one's answers are right or wrong, so please respect everyone's opinion. And, finally, it is important that everyone has an opportunity to express their opinions concerning each question. It is my job to ensure that everyone has that opportunity. With these guidelines in mind, let's begin!

1. For those of you **not** directly involved in Quest, what is your understanding of the project?

2. What school improvement efforts have you undertaken here as a result of your school's participation in Quest?

3. How successful have these been? For what reasons?

4. What student results or outcomes have you seen as a result of the improvement projects you've undertaken? (Do you have data or stories supporting this that you might share with us?)

5. What other results or outcomes have you seen as a result of these projects? (Do you have data or stories supporting this that you might share with us?)

6. What is your favorite story about the projects you've participated in?

APPENDIX D:

Quest Reflective Assessment Questionnaire

Reflective Assessment for Quest Schools of Continuous Improvement

Name: _____ School: _____

Directions: This instrument was designed to help you reflect upon your school's development as a school of continuous improvement. For each of the six dimensions of the Quest framework, circle the number that best represents your school's current position on the continuum. Then explain your rating and describe how change has occurred. **Please be honest. We appreciate frank and open responses.**

Also, please be assured that your name will not be associated with any of your comments. We are committed to protecting your confidentiality and anonymity.

Culture for Learning

➤ The paragraph below describes a school at "100" in the area of "culture for learning." Where does your school fit on the continuum?

Members of the school staff frequently reflect on how to improve the school for all students. They not only ask lots of questions–including "How can we do this better?"–but also they regularly try new ideas, with administrative support, and celebrate their successes as a community. Likewise, students are curious and show excitement for learning.

100 90 80 70 60 50 40 30 20 10 0

➤ On what do you base your rating? Cite specific evidence/examples to support the above rating.

➤ Has involvement in Quest for Quality Learning Communities influenced your school's development in this area?

□ No □ Yes

If yes, in what ways has Quest made an impact? Give specific examples.

▼

If yes or no, what *besides involvement in Quest* have been the major factors influencing your school's development in this area?

Community of Learners

➤ The paragraph below describes a school at "100" in the area of "community of learners." Where does your school fit on the continuum?

Members of the school community, especially students and teachers, feel connected to one another and to the school as an organization with a clear mission. Open and regular communication promote norms of trust and respect. The school is a center of learning for the entire community; parents and other community members are welcomed and valued.

100 90 80 70 60 50 40 30 20 10 0

➤ On what do you base your rating? Cite specific evidence/examples to support the above rating.

➤ Has involvement in Quest for Quality Learning Communities influenced your school's development in this area?

□ No □ Yes

If yes, in what ways has Quest made an impact? Give specific examples.

If yes or no, what *besides involvement in Quest* have been the major factors influencing your school's development in this area?

Sharing Leadership for Learning

➤ The paragraph below describes a school at "100" in the area of "sharing leadership for learning." Where does your school fit on the continuum?

Teachers, parents, and students have a forum for input into decisions and have easy access to important information about the school. They know that they are listened to and that what they think and do makes a difference. School administrator(s) participate democratically with teachers. School leadership teams include students–or at least are guided by students' perspectives–as they plan for school improvement.

100 90 80 70 60 50 40 30 20 10 0

➤ On what do you base your rating? Cite specific evidence/examples to support the above rating.

➤ Has involvement in Quest for Quality Learning Communities influenced your school's development in this area?

□ No □ Yes

If yes, in what ways has Quest made an impact? Give specific examples.

If yes or no, what *besides involvement in Quest* have been the major factors influencing your school's development in this area?

Shared Goals for Learning

➤ The paragraph below describes a school at "100" in the area of "shared goals for learning." Where does your school fit on the continuum?

Goals for school improvement are specific, measurable, and identifiable by all segments of the school community. These goals are a major consideration in decision making about allocation of school resources. They affect decisions at both the classroom and school levels.

100 90 80 70 60 50 40 30 20 10 0

➤ On what do you base your rating? Cite specific evidence/examples to support the above rating.

➤ Has involvement in Quest for Quality Learning Communities influenced your school's development in this area?

□ No □ Yes

If yes, in what ways has Quest hade an impact? Give specific examples.

▼

If yes or no, what *besides involvement in Quest* have been the major factors influencing your school's development in this area?

Assessing and Demonstrating Learning

➤ The paragraph below describes a school at "100" in the area of "assessing and demonstrating learning." Where does your school fit on the continuum?

At the school level, multiple data sources are carefully studied and used in setting goals. Results of student achievement tests are disaggregated and are widely communicated and interpreted to the broader community. At the classroom level, teachers communicate clear expectations for student performance and use a variety of methods to assess progress. Students and teachers actively assess their own performance and time is provided for this reflection.

100 90 80 70 60 50 40 30 20 10 0

➤ On what do you base your rating? Cite specific evidence/examples to support the above rating.

➤ Has involvement in Quest for Quality Learning Communities influenced your school's development in this area?

□ No □ Yes

If yes, in what ways has Quest hade an impact? Give specific examples.

If yes or no, what *besides involvement in Quest* have been the major factors influencing your school's development in this area?

Enabling SMART Learners

➤ The paragraph below describes a school at "100" in the area of "enabling SMART learners." Where does your school fit on the continuum?

Throughout the school, students and teachers are actively engaged in meaningful work which they understand is connected with the real world and with their future. Students are aware of their own personal strengths in learning, they increasingly are intrinsically motivated to learn, and accept responsiblity for their own performance. Students and teachers are aware that learning discrete facts is not nearly as important as is developing skills necessary for lifelong learning in the complex world of the 21st century.

100 90 80 70 60 50 40 30 20 10 0

➤ On what do you base your rating? Cite specific evidence/examples to support the above rating.

➤ Has involvement in Quest for Quality Learning Communities influenced your school's development in this area?

□ No □ Yes

If yes, in what ways has Quest hade an impact? Give specific examples.

If yes or no, what *besides involvement in Quest* have been the major factors influencing your school's development in this area?

APPENDIX E:

Professional Learning Community Instrument

School Professional Staff as Learning Community*

Directions: This questionnaire concerns your perceptions about your school as a learning organization. There are no right or wrong responses. Please consider where you believe your school is in its development of each of the five numbered descriptors shown in bold-faced type on the left. Each sub-item has a five-point scale. On each scale, circle the number that best represents the degree to which you feel your school has developed.

Last Four Social Security Numbers: __ __ __ __

Date: _____

School: _____

1. **School administrators participate democratically with teachers sharing power, authority, and decision making.**

1a

5	4	3	2	1
Although there are some legal and fiscal decisions required of the principal, school administrators consistently involve the staff in discussing and making decisions about most school issues.		Administrators invite advice and counsel from the staff and then make decisions themselves.		Administrators never share information with the staff nor provide opportunities to be involved in decision making.

1b

5	4	3	2	1
Administrators involve the entire staff.		Administrators involve a small committee, council, or team of staff.		Administrators do not involve any staff.

2. **Shared visions for school improvement have an undeviating focus on student learning and are consistently referenced for the staff's work.**

2a

5	4	3	2	1
Visions for improvement are discussed by the entire staff such that consensus and a shared vision results.		Visions for improvement are not thoroughly explored; some staff agree and others do not.		Visions for improvement held by the staff are widely divergent.

2b

5	4	3	2	1
Visions for improvement are always focused on students and teaching and learning.		Visions for improvement are sometimes focused on students and teaching and learning.		Visions for improvement do not target students and teaching and learning.

2c

5	4	3	2	1
Visions for improvement target high quality learning experiences for all students.		Visions for improvement address quality learning experiences in terms of students' abilities.		Visions for improvement do not include concerns about the quality of learning experiences.

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3. Staff's collective learning and application of the learnings (taking action) create high intellectual learning tasks and solutions to address student needs.

3a

5	4	3	2	1
The entire staff meets to discuss issues, share information, and learn with and from each other.		Subgroups of the staff meet to discuss issues, share information, and learn with and from each other.		Individuals discuss issues, share information, and learn with and from each other.

3b

5	4	3	2	1
The staff meets regularly and frequently on substantive student-centered educational issues.		The staff meets occasionally on substantive student-centered educational issues.		The staff never meets to consider substantive educational issues.

3c

5	4	3	2	1
The staff discusses the quality of their teaching and students' learning.		The staff does not often discuss their instructional practices nor its influence on student learning.		The staff basically discusses non-teaching and non-learning issues.

3d

5	4	3	2	1
The staff, based on their learnings, makes and implements plans that address students' needs, more effective teaching, and more successful student learning.		The staff occasionally acts on their learnings and makes and implements plans to improve teaching and learning.		The staff does not act on their learning.

3e

5	4	3	2	1
The staff debriefs and assesses the impact of their actions and makes revisions.		The staff infrequently assesses their actions and seldom makes revisions based on the results.		The staff does not assess their work.

---

4. Peers review and give feedback based on observing each other's classroom behaviors in order to increase individual and organizational capacity.

4a

5	4	3	2	1
Staff regularly and frequently visit and observe each other's classroom teaching.		Staff occasionally visit and observe each other's teaching.		Staff never visit their peers' classrooms.

4b

5	4	3	2	1
Staff provide feedback to each other about teaching and learning based on their classroom observations.		Staff discuss non-teaching issues after classroom observations.		Staff do not interact after classroom observations.

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5. Conditions and capacities support the school's arrangement as a professional learning organization.

5a

5	4	3	2	1
Time is arranged and committed for whole staff interactions.	Time is arranged but frequently the staff fails to meet.			Staff cannot arrange time for interacting.

5b

5	4	3	2	1
The size, structure, and arrangements of the school facilitate staff proximity and interaction.	While the facility and school membership are large, the staff are working to maximize existing arrangements for interaction.			The staff takes no action to manage the facility and personnel for interaction.

5c

5	4	3	2	1
A variety of processes and procedures are used to encourage staff communication.	A single communication exists and is sometimes used to share information.			Communication devices are not given attention.

5d

5	4	3	2	1
Trust and openness characterize all the staff.	Some of the staff are trusting and open.			Trust and openness do not exist among the staff.

5e

5	4	3	2	1
Caring, collaborative, and productive relationships exist among all the staff.	Caring and collaboration are inconsistently demonstrated among the staff.			Staff are isolated and work alone at their task.

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*Hord, Shirley M. (1996). Austin, TX: Southwest Educational Development Laboratory.

APPENDIX F:

Quest Innovation Configuration Checklist

School Name: _____ Your Role/Position _____

Date: _____

Quest Schools of Continuous Improvement
Innovation Configuration Checklist

Directions: The eight items in this instrument represent the components associated with the Quest Network of Schools of Continuous Improvement. Beneath each component are alternative ways in which the components might be implemented in a school. For each item, circle the letter which best describes *your* perception of how Quest has been implemented in your school.

1. **School Leadership Team**

   a. All three of the following are true of our school leadership team: (1) It is inclusive with administrator, teacher, parent, and (in the case of high schools) student membership; (2) It has been fairly stable over time; and (3) It has assumed active leadership in taking our quest back home to the broader school community.

   b. Two of the following are true of our school leadership team: (1) It is inclusive with administrator, teacher, parent, and (in the case of high schools) student membership; (2) It has been fairly stable over time; and (3) It has assumed active leadership in taking our quest back home to the broader school community.

   c. One of the following statements is true of our school leadership team: (1) It is inclusive with administrator, teacher, parent, and (in the case of high schools) student membership; (2) It has been fairly stable over time; and (3) It has assumed active leadership in taking our quest back home to the broader school community.

   d. Our school does not have a true leadership team.

2. **Administrative Support**

   a. One or more of our school's administrators are active members of the leadership team and extensively involved in Quest activities.

   b One or more of our school's administrators are members of the leadership team and have been occasionally involved in Quest activities.

   c One or more of our school's administrators have been involved in a few Quest activities and have been generally supportive of our team.

   d Our school administrators have not been involved in Quest activities and are only minimally supportive of our school's involvement in Quest.

3. **Participation in Network Events**

   a. Individuals from our school have participated in three (3) or more Network events during the past year including Rallies, Summer Symposia, and/or Scholar's Colloquia.

   b. Individuals from our school have participated in two (2) Network events during the past twelve months including Rallies, Summer Symposia, and/or Scholar's Colloquia.

   c. Individuals from our school have participated in one (1) Network event during the past twelve months including Rallies, Summer Symposia, and/or Scholar's Colloquia.

   d. Individuals from our school have not participated in any Network events during the past year.

4. **Participation in Co-Ventures in Learning**

   a. A wide cross-section (i.e., administrators, teachers, staff, parents, and students) of our school community participated in the Quest Co-Venture(s) in Learning.

   b. A limited number of our school community—primarily administrators, teachers and staff—participated in our Quest Co-Venture(s).

   c. Our school has not yet engaged in a Quest Co-Venture in Learning, but plans to do so during this school year.

   d. Our school has no plans to participate in a Quest Co-Venture.

5. **Involvement with Other Quest Schools**

   a. Our school has been directly involved in sharing successful practices with other Quest schools by either (1) adopting a practice that we learned about from a sister school, (and)/or (2) helping a sister school adopt a practice that has been effectively used at our school.

   b. Individuals from our school have visited another Quest school or our school has hosted a visit by another Quest school to our campus.

   c. Leadership team members have shared ideas with individuals from other schools at rallies and other network events.

   d. Our school has had very limited involved with other Quest schools.

6. **School Improvement/Action Research**

   a. Our school is implementing a school improvement project in connection with our involvement in Quest and is collecting data to demonstrate its impact on student learning.

   b. Our school is implementing a school improvement project in connection with our involvement in Quest, but has not designed a formal plan for assessing its effectiveness.

   c. Our school is currently considering one or more school improvement initiatives that would be supported by our involvement with Quest.

   d. Our school has no plans to pursue an improvement initiative as a part of our involvement in the Quest network.

7. **Change in School-Wide View of School Improvement**

   a. Our school community has been significantly impacted by the Quest approach. A wide cross-section is aware of the Quest framework and committed to work on one or more of the component parts.

   b. Our faculty and staff have focused on one or more aspect of the Quest approach to continuous improvement.

   c. Members of the Quest leadership team have been affected by the Quest approach to continuous improvement.

   d. Our school community has not been influenced by the Quest approach to continuous improvement.

8. **Engagement in Related School Improvement Efforts**

   a. Our school has been actively engaged in other school improvement efforts and the results have been recognizable.

   b. Our school has been involved in other school improvement efforts but there are no clearly identifiable results from our participation.

   c. Our school has not been involved in any other school improvement efforts.

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APPENDIX G:

Completed Evaluation *Standards* Checklist

Checklist for Applying the Standards

To interpret the information provided on this form, the reader needs to refer to the full text of the standards as they appear in Joint Committee on Standards for Educational Evaluation, *The Program Evaluation Standards* (1994), Thousand Oaks, CA, Sage.

The Standards were consulted and used as indicated in the table below (check as appropriate):

Descriptor		The Standard was addressed	The Standard was partially addressed	The Standard was not addressed	The Standard was not applicable
U1	Stakeholder Identification	x			
U2	Evaluator Credibility	x			
U3	Information Scope and Selection	x			
U4	Values Identification	x			
U5	Report Clarity	x			
U6	Report Timeliness and Dissemination	x			
U7	Evaluation Impact	x			
F1	Practical Procedures	x			
F2	Political Viability				x
F3	Cost Effectiveness	x			
P1	Service Orientation	x			
P2	Formal Agreements	x			
P3	Rights of Human Subjects	x			
P4	Human Interactions	x			
P5	Complete and Fair Assessment	x			
P6	Disclosure of Findings	x			
P7	Conflict of Interest	x			
P8	Fiscal Responsibility	x			
A1	Program Documentation	x			
A2	Context Analysis	x			
A3	Described Purposes and Procedures	x			
A4	Defensible Information Sources	x			
A5	Valid Information	x			
A6	Reliable Information	x			
A7	Systematic Information	x			
A8	Analysis of Quantitative Information	x			
A9	Analysis of Qualitative Information	x			
A10	Justified Conclusions	x			
A11	Impartial Reporting	x			
A12	Metaevaluation	x			

The Program Evaluation Standards (1994, Sage) guided the development of this (check one):

____ request for evaluation plan/design/proposal
____ evaluation plan/design/proposal
____ evaluation contract
_x_ evaluation report
____ other: _____

Name Caitlin Howley-Rowe Date 9/7/00

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